Climatological Data for November, 1909.

DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

November was a warm and an unusually wet month, the temperature and precipitation being above normal at practically every station. The noteworthy feature of the weather was the great amount of precipitation which occurred mostly in the form of snow, especially in the mountains.

TEMPERATURE.

The monthly mean temperature for the district as a whole was 38.6°, which was 1.2° above the normal, and ranged from 24.5° at Truckee, Cal., to 45.8° at Lovelock, Nev.

Except in the extreme southern portion of Utah and in the southern third of Nevada, the mean temperatures were above normal at all stations. The greatest excesses of temperature were confined for the most part to the northern portion of the district, although there were notable exceptions in the central portion. The greatest plus departure was 7.8° at Ely, Nev., and the greatest minus departure was 12.0° at Truckee, Cal.

The highest mean temperatures occurred in the Great Salt Lake and Utah Lake valleys and in the extreme western portion of Nevada, where a number of stations reported means of 40° and above. The lowest means of course occurred at the mountain stations, some of which were 33.6° at Kelton, Utah, 31.8° at Quinn River Ranch, Nev., and at Border, Wyo., and 24.5° at Truckee, Cal.

The month began with nearly normal temperature over the entire district. It became colder about the 5th, and this cold spell continued through the first decade. The highest temperature reported was 87° at Spanish Fork, Utah, on the 7th, and most of the other stations reported their highest temperatures during this decade. Temperatures below freezing were experienced daily at many stations, while some stations in protected valleys reported only heavy frosts.

The cold weather of the latter portion of the first decade extended into the second, and the temperature continued to fall until the 16th and 17th, on which dates the lowest temperatures for the month were generally reported. The lowest minimum temperature was 12° below zero at Christmas Lake, Oreg. Other low temperatures were 10° below zero at Elko, Nev., and 11° below at Marysville, Utah, on the 16th. After the 17th it grew warmer over the whole district and at the end of this decade nearly normal temperatures prevailed, and so continued until the middle of the last decade when colder weather set in. The minimum temperature during this last cold period dropped to zero at some stations on the 28th.

PRECIPITATION.

Unusually heavy precipitation occurred practically everywhere, there being only one station reporting a deficiency in moisture. Many stations reported twice and some many times the normal amount. In north-central Utah amounts from 4 to 6 inches were recorded which were from 1 to 3 inches above normal. In the remainder of the district the precipitation was from 0.50 to 2.50 inches above normal. The greatest monthly amount was 6.15 inches at Huntsville, Utah.

Generally fair weather prevailed for the first 5 days in the month, except in Oregon where rain fell on the 1st and 2d at a few stations. On the 5th light rains fell in Oregon, and on the 6th in California and Nevada. After this date there were two well-defined rainy periods, the first extended from the 9th to the 15th and the second from the 19th to the 27th. During the first period moderately heavy precipitation occurred on the 15th in Nevada and on the 15th and 16th in Utah. It was during the latter period, however, that the greatest daily amounts fell. At Eureka, Nev., 2.27 inches were recorded in 24 hours on the 26th.

In Nevada the precipitation was nearly double the normal amount and was the greatest on record with the exception of that in November, 1892. In Utah the mean precipitation was about 0.75 inch above the greatest previous State average, which occurred in 1906.

Snow fell at all points in the district, ranging from 1 to 44 inches. West of Lake Tahoe amounts from 38 to 44 inches were reported. In Utah in the mountains large amounts were also reported ranging from 15 to 29 inches.

MISCELLANEOUS PHENOMENA.

Thunderstorms were reported at Glen Alpine, Cal., on the 24th.

Hail was reported at Mina, Nev., on the 12th.

There was an average of 7 rainy days, 10 clear days, 7 partly cloudy days, and 13 cloudy days for the district, as a whole.

THE IMPORTANCE OF MOUNTAIN CLIMATE IN THE WEST.—THE WEATHER BUREAU AND THE FOREST SERVICE IN COOPERATION.

By E. R. HODSON, Assistant, U. S. Forest Service.

Cooperation is a somewhat recent innovation, at least in some directions, between different branches of the Government Service. It is a scheme whereby different governmental activities are rendered mutually helpful along lines common to two or more branches, thereby subserving the public interest better both as to efficiency and economy. Since it is a procedure strictly in line with modern industrial development it has a practical basis and for this reason and because of its flexibility it bids fair to have a wide field of usefulness. As a feature of governmental administration it would seem to merit further consideration.

This agency was adopted by the Weather Bureau when in July, 1908, a plan of interbureau cooperation was consummated between that Bureau, the Reclamation Service, the Forest Service, the Bureau of Plant Industry and the Water Resources Branch of the Geological Survey; early in 1909 it was further extended to include the Office of Indian Affairs. By this plan the assistance of interested parties is enlisted not only in securing climatic data, but also in advising practical measures for rendering it adaptable to general use. Besides the immediate purpose, to collect data, it should serve to arouse a keener interest in climatology. It should emphasize in particular the wide field of its practical application.

This extension of the Weather Bureau's work is especially opportune since within the last few years an impetus has been given to the desire for climatic data. The demand being largely aroused by its importance in irrigation and by those interested in the development of inland waterways, working through the Inland Waterways Commission, for a comprehensive system of interior water communication. This demand was only intensified when the Inland Waterways Commission and its objects were merged with the broader and more far-reaching movement for the conservation of natural resources.

To meet the demand from all quarters, for more data of a wider range the Weather Bureau has sought to make use of all the different governmental agencies possible, in order that the limited means at its disposal may yield the most results and secure their practical application. Hence the general plan of cooperation which has been inaugurated.